

Statement of Intent

Mathematics provides a powerful universal language and an intellectual toolkit for abstraction, generalisation and synthesis. It is of central importance to a modern society as mathematics underpins the knowledge of the economy and is the language of science to enable us to develop new technologies.

Mathematical skills are highly valued and sought after by a variety of employers. Mathematics disciplines the mind, develops logical and critical reasoning and develops problem-solving skills to a high degree. Employment surveys show that graduates in mathematical subjects are in increasing demand in the UK economy.

Our aims are to build a deep culture of understanding, confidence and competence in Maths, a culture that will produce strong secure learning and real progress in the students that attend our school. We intend to shape all our students into assured, happy, resilient Mathematicians helping them to become independent reflective thinkers – not just in Maths, but across the whole curriculum.

We intend to provide a curriculum which caters for the needs of all individuals and sets them up with the necessary skills and knowledge for them to become successful in their future adventures. We aim to prepare them for a successful working life. We incorporate sustained levels of challenge through varied and high-quality activities with a focus on fluency, reasoning and problem solving.

Pupils are required to explore maths in depth, using mathematical vocabulary to reason and explain their workings. Pupils are taught to show their workings in a concrete, pictorial and abstract form wherever suitable. They are taught to explain their choice of methods and develop their mathematical reasoning skills. We encourage resilience, adaptability and acceptance that struggle is often a necessary step in learning.

Key Stage 3 Curriculum

Pupils have 4 Mathematics lessons a week and will receive weekly homework. Key stage 3 follow a mastery curriculum. The aim of the mastery curriculum is to enhance pupils' enjoyment, resilience, understanding and attainment in Mathematics. The curriculum is designed in relatively small carefully sequenced steps resulting in pupils acquiring a deep, long-term, secure and adaptable understanding of the subject.

Key Stage 4 Curriculum

For GCSE Mathematics we follow the Edexcel course and at the end of Year 11 pupils will sit three 90 minute exams, 1 non-calculator and 2 calculator papers. The main strands of the course are: Number, Algebra, Geometry & Measures, Statistics & Probability.

Functional elements have been embedded in the course so that pupils are able to use mathematics in real life contexts. In their 'Using and Applying' of Mathematics pupils will develop their thinking skills so they will learn how to form convincing arguments, to justify findings and general statements and to work logically towards results and solutions. Students have 4 lessons a week and receive weekly homework.

Key Stage 5 Curriculum

At key stage 5 we offer pupils a variety of pathways to continue their maths studies which can include A level maths, Further maths, Core Maths (AS level) and GCSE retake. Pupils will have 3 to 5 lessons per week depending on the course and will receive homework after every lesson.

Extended Learning

All pupils have the opportunity to compete in the UKMT challenges. This is a national competition which encourages mathematical reasoning, precision of thought, and fluency in using basic mathematical techniques to solve interesting problems.

Older pupils also have the opportunity to take part in the team and senior team Mathematics Challenge competition, giving them the opportunity to tackle a variety of engaging mathematical activities while developing teamwork and communication skills.

Raynes Park High School also hosts an annual Mathematics Feast, this is a team competition testing mathematical understanding, team-working and communication skills. This is for Year 10 pupils and gives them to compete against other local schools.

What can parents do to support extended learning in this subject?

It is incredibly important that parents are positive about Mathematics. Avoid saying things like "I can't do Mathematics" or "I hated Mathematics at school"; your child might start to think like that themselves. In Maths lessons we promote a "can do" growth mind set attitude.

Help to build your child's real life mathematics skills by involving them in real life Mathematics problems. In everyday life adults have to negotiate mathematics problems and if possible involve your child in these decisions. It could be from deciding which is the best car insurance deal to comparing a "buy one get one free" deal with a "buy 3 for 2" deal in a supermarket.